

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 10/740,261
Inventor(s) : Osman Polat, et al.
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Art Unit : 1794
Examiner : Andrew T. Piziali
Docket No. : 9475
Confirmation No. : 1913
Customer No. : 27752
Title : FIBROUS STRUCTURE COMPRISING
CELLULOSIC AND SYNTHETIC FIBERS

APPEAL BRIEF

Mail Stop Appeal Brief - Patents

Commissioner for Patents

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Alexandria, VA 22313-1450

This Brief is filed pursuant to the appeal from the decision communicated in the Office Action mailed on January 27, 2010.

A timely Notice of Appeal was filed on April 16, 2010.

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REAL PARTY IN INTEREST

The real party in interest is The Procter & Gamble Company of Cincinnati, Ohio.

RELATED APPEALS AND INTERFERENCES

There are no known related appeals, interferences, or judicial proceedings.

STATUS OF CLAIMS

Claims 1-5, 8-15, and 18-20 are rejected.

Claims 1-5, 8-15, and 18-20 are appealed.

A complete copy of the appealed claims is set forth in the Claims Appendix attached herein.

STATUS OF AMENDMENTS

A Reply After Final Rejection was filed on March 29, 2010. No amendment to the claims was made after receiving the Final Rejection.

SUMMARY OF CLAIMED SUBJECT MATTER

In one example of the present invention, as claimed in Claim 1, a fibrous structure (Page 5, lines 13-17; Fig. 10, 100) comprising at least two

layers (Page 2, lines 22-25; Fig. 10) wherein at least one of the layers (Page 2, lines 22-25; Fig. 10) of the structure (Page 5, lines 13-17; Fig. 10) comprises randomly distributed (Page 10, lines 30-32; Page 18, lines 24-29; Fig. 10) softwood fibers (Page 4, lines 22-25; Fig. 10, 103) and at least one other layer (Page 2, lines 22-25) of the structure (Page 5, lines 13-17; Fig. 10) comprises a mixture (Page 18, lines 27-29; Fig. 10, 104) of short cellulosic fibers and synthetic fibers (Page 18, lines 27-29; Fig. 10, 101), wherein the at least one other layer (Page 2, lines 22-25) is disposed on the layer (Page 2, lines 22-25) comprising randomly distributed (Page 10, lines 30-32; Page 18, lines 24-29; Fig. 10) softwood fibers (Page 4, lines 22-25; Fig. 10, 103) in a non-random pattern (Page 18, lines 27-29) of regions (Fig. 10) of different basis weight (Fig. 10) comprising regions (Fig. 10) containing the mixture (Page 18, lines 27-29; Fig. 10) of short cellulosic fibers (Page 18, lines 27-29) and synthetic fibers (Page 18, lines 27-29; Fig. 10, 101) and regions (Fig. 10) void of the mixture (Page 18, lines 27-29; Fig. 10) of short cellulosic fibers (Page 18, lines 27-29) and synthetic fibers (Page 18, lines 27-29; Fig. 10, 101), is provided.

In another example of the present invention, as claimed in Claim 2,

the mixture (Page 18, lines 27-29; Fig. 10) of short cellulosic fibers (Page 18, lines 27-29) and synthetic fibers (Page 18, lines 27-29; Fig. 10, 101) have a synthetic fiber length to cellulosic fiber length ratio (Page 7, lines 20-24) greater than about 1 (Page 7, lines 20-24), is provided.

In another example of the present invention, as claimed in Claim 3, the mixture (Page 18, lines 27-29; Fig. 10) of short cellulosic fibers (Page 18, lines 27-29) and synthetic fibers (Page 18, lines 27-29; Fig. 10, 101) have a synthetic fiber length to cellulosic fiber length ratio (Page 7, lines 20-24) between about 1 and about 20 (Page 7, lines 20-24), is provided.

In another example of the present invention, as claimed in Claim 4, the mixture (Page 18, lines 27-29; Fig. 10) of short cellulosic fibers (Page 18, lines 27-29) and synthetic fibers (Page 18, lines 27-29; Fig. 10, 101) have a PTP factor of greater than about 0.75 (Page 7, lines 24-28) , is provided.

In another example of the present invention, as claimed in Claim 5, the short cellulosic fibers (Page 18, lines 27-29) are hardwood fibers (Page 5, lines 4-8) , is provided.

In another example of the present invention, as claimed in Claim 8, the short cellulosic fibers (Page 18, lines 27-29) have a length weighted average fiber length of less than about 1 mm (Page 5, lines 4-8) and an average

cellulosic fiber width of less than about 18 micrometers (Page 7, lines 10-14), is provided.

In another example of the present invention, as claimed in Claim 9, the synthetic fibers (Page 18, lines 27-29; Fig. 10, 101) have a length weighted average fiber length of more than about 2 mm and an average synthetic fiber diameter of more than about 15 micrometers (Page 7, lines 13-17), is provided.

In another example of the present invention, as claimed in Claim 10, the softwood fibers (Page 4, lines 22-25; Fig. 10, 103) have a length weighted average fiber length of greater than about 2 mm (Page 4, lines 22-25) and an average cellulosic fiber width less than about 50 micrometers (Page 7, lines 6-10), is provided.

In another example of the present invention, as claimed in Claim 11, at least some of the synthetic fibers (Page 18, lines 27-29; Fig. 10, 101) are bicomponent fibers (Page 6, lines 7-24), is provided.

In another example of the present invention, as claimed in Claim 12, the bicomponent fibers (Page 6, lines 7-24) are polyester based (Page 6, line 7-24) or polyolefin based (Page 6, line 7-24), is provided.

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In another example of the present invention, as claimed in Claim 13, the mixture (Page 18, lines 27-29; Fig. 10) of short cellulosic fibers (Page 18, lines 27-29) and synthetic fibers (Page 18, lines 27-29; Fig. 10, 101) has a coarseness value of less than about 50mg/100m (Page 7, lines 28-32), is provided.

In another example of the present invention, as claimed in Claim 14, the mixture (Page 18, lines 27-29; Fig. 10) of short cellulosic fibers (Page 18, lines 27-29) and synthetic fibers (Page 18, lines 27-29; Fig. 10, 101) has a coarseness value of less than about 25mg/100m (Page 7, lines 28-32), is provided.

In another example of the present invention, as claimed in Claim 15, at least some of the synthetic fibers (Page 18, lines 27-29; Fig. 10, 101) are co-joined (Page 4, lines 15-17) to at least some of the cellulosic fibers and/or other synthetic fibers (Page 16, lines 25-33; Fig. 12), is provided.

In another example of the present invention, as claimed in Claim 18, the fibrous structure (Page 5, lines 13-17; Fig. 10, 100) is creped, uncreped or embossed (Page 16, lines 12-16; Page 18, line 30 to Page 19, line 5), is provided.

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In another example of the present invention, as claimed in Claim 19, the fibrous structure (Page 5, lines 13-17; Fig. 10, 100) is combined with a separate structure to form a multi-ply article (Page 18, lines 31-33), is provided.

In another example of the present invention, as claimed in Claim 20, the fibrous structure (Page 5, lines 13-17; Fig. 10, 100) further includes latex (Page 19, lines 4-5) disposed on at least a portion the fibrous structure (Page 5, lines 13-17; Fig. 10, 100).

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Rejection of Claims 1, 5, and 18-20 under 35 U.S.C. §103(a) as allegedly defining obvious subject matter over U.S. Patent No. 5,538,595 to Trokhan et al. ("Trokhan '595") in view of any one U.S. Patent No. 2,113,431 to Milliken ("Milliken"), U.S. Patent No. 3,034,180 to Greiner et al. ("Greiner"), U.S. Patent No. 5,245,025 to Trokhan et al. ("Trokhan '025"), or U.S. Patent No. 5,328,565 to Rasch et al. ("Rasch")

- i. Claims 1, 5, and 18-20

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Rejection of Claims 2 and 3 under 35 U.S.C. §103(a) as allegedly defining obvious subject matter over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of U.S. Patent No. 6,548,731 to Mizutani et al. ("Mizutani")

- i. Claim 2
- ii. Claim 3

Rejection of Claims 4, 8-12, and 15 under 35 U.S.C. §103(a) as allegedly defining obvious subject matter over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of WO 93/14267 to Manning ("Manning")

- i. Claim 4
- ii. Claim 8
- iii. Claim 9
- iv. Claim 10
- v. Claim 11
- vi. Claim 12
- vii. Claim 15

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Rejection of Claim 9 under 35 U.S.C. §103(a) as allegedly defining obvious subject matter over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of U.S. Patent No. 4,202,959 to Henbest et al. ("Henbest")

i. Claim 9

Rejection of Claims 13 and 14 under 35 U.S.C. §103(a) as allegedly defining obvious subject matter over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of any one U.S. Patent No. 5,405,499 to Vinson ("Vinson") or U.S. Patent No. 5,409,572 to Kershaw et al. ("Kershaw")

i. Claim 13

ii. Claim 14

ARGUMENTS

Rejection of Claims 1, 5, and 18-20 under 35 U.S.C. §103(a) as allegedly defining obvious subject matter over U.S. Patent No. 5,538,595 to Trokhan et al. ("Trokhan '595") in view of any one U.S. Patent No. 2,113,431 to Milliken ("Milliken"), U.S. Patent No. 3,034,180 to Greiner et al.

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("Greiner"), U.S. Patent No. 5,245,025 to Trokhan et al. ("Trokhan '025"),
or U.S. Patent No. 5,328,565 to Rasch et al. ("Rasch")

i. Claims 1, 5, and 18-20

Claims 1, 5, and 18-20 are rejected by the Examiner under 35 U.S.C. §103(a) as allegedly defining obvious subject matter over U.S. Patent No. 5,538,595 to Trokhan et al. ("Trokhan '595") in view of any one U.S. Patent No. 2,113,431 to Milliken ("Milliken"), U.S. Patent No. 3,034,180 to Greiner et al. ("Greiner"), U.S. Patent No. 5,245,025 to Trokhan et al. ("Trokhan '025"), or U.S. Patent No. 5,328,565 to Rasch et al. ("Rasch"). The Examiner asserts that Trokhan '595 discloses a fibrous tissue structure comprising at least two randomly distributed layers wherein at least one of the layers of the structure includes long cellulosic fibers, at least one of the layers includes short cellulosic fibers, and that synthetic fibers may be used in combination with the cellulosic fibers. The Examiner further asserts that Trokhan '595 discloses that at least one layer is disposed on the layer comprising the long cellulosic fibers. The Examiner recognizes that Trokhan '595 does not appear to specifically mention that the layer is disposed on the layer comprising the long cellulosic fibers in a non-random pattern of regions of different basis weight. The Examiner asserts that the

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secondary references: Milliken, Greiner, Trokhan '025, and Rasch teach that it is known in the tissue paper art to dispose an outer layer in a non-random pattern of regions of different basis weight motivated by a desire to increase performance, increase fluid permeability, and/or improve appearance.

The Examiner further asserts in the Advisory Action mailed April 5, 2010 that the aperture areas taught by the prior art references may be considered part of the layers. As a result of the Examiner's interpretation of the apertures in the prior art structures, the Examiner apparently has concluded that the apertures would be considered one of the different basis weight regions of the layer comprising a mixture of short cellulosic fibers and synthetic fibers that are disposed on the layer comprising softwood fibers, wherein the aperture would be a region that is void of the mixture of short cellulosic fibers and synthetic fibers.

Contrary to the Examiner's conclusion, Appellant respectfully submits that the aperture contains neither the layer comprising the short cellulosic fibers and synthetic fibers nor the layer comprising the softwood fibers upon which the layer comprising the mixture is disposed. Appellant submits that the aperture is clearly void of both layers.

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Appellant respectfully submits that Trokhan `595 in view of any one of Milliken, Greiner, Trokhan `025, and Rasch fails to teach each and every element of Claim 1, the independent claim, because Trokhan `595 in view of Milliken, Greiner, Trokhan `025, and Rasch fail to teach a layer comprising a mixture of short cellulosic fibers and synthetic fibers that is disposed on a layer of long cellulosic fibers in a non-random pattern of regions of different basis weight wherein the non-random pattern comprises regions that contain the mixture of short cellulosic fibers and synthetic fibers and regions that are void of the mixture.

Appellant submits that Milliken fails to teach a layer comprising a mixture of short cellulosic fibers and synthetic fibers that is disposed on a layer of long cellulosic fibers in a non-random pattern of regions of different basis weight wherein the non-random pattern comprises regions that contain the mixture of short cellulosic fibers and synthetic fibers and regions that are void of the mixture. Appellant submits that Milliken teaches a tissue that has apertures that extend through the entire thickness of the tissue. Therefore, even if Milliken taught a tissue comprising two layers, which Appellant submits it does not, the two layers would be coextensive since the apertures

would extend through both layers therefore one layer would not be disposed on the other layer in a non-random pattern.

Appellant submits that Greiner fails to teach a layer comprising a mixture of short cellulosic fibers and synthetic fibers that is disposed on a layer of long cellulosic fibers in a non-random pattern of regions of different basis weight wherein the non-random pattern comprises regions that contain the mixture of short cellulosic fibers and synthetic fibers and regions that are void of the mixture. Appellant submits that Greiner teaches a tissue that has apertures that extend through the entire thickness of the tissue. Therefore, even if Greiner taught a tissue comprising two layers, which Appellant submits it does not, the two layers would be coextensive since the apertures would extend through both layers therefore one layer would not be disposed on the other layer in a non-random pattern.

Appellant submits that Trokhan '025 fails to teach a layer comprising a mixture of short cellulosic fibers and synthetic fibers that is disposed on a layer of long cellulosic fibers in a non-random pattern of regions of different basis weight wherein the non-random pattern comprises regions that contain the mixture of short cellulosic fibers and synthetic fibers and regions that are void of the mixture. Appellant submits that Trokhan '025 teaches a tissue

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that has at least three regions disposed in a non-random repeating pattern, wherein the regions differ in basis weight. Appellant submits that Trokhan '025 fails to teach a layer comprising a mixture of short cellulosic fibers and synthetic fibers that is disposed in regions of that contain the mixture and regions that are void of the mixture on a layer comprising long cellulosic fibers. Appellant submits that Trokhan '025's layers are coextensive such that the one layer is not disposed on the other layer in a non-random pattern comprising regions that are void of the fiber mixture of one layer.

Appellant submits that Rasch fails to teach a layer comprising a mixture of short cellulosic fibers and synthetic fibers that is disposed on a layer of long cellulosic fibers in a non-random pattern of regions of different basis weight wherein the non-random pattern comprises regions that contain the mixture of short cellulosic fibers and synthetic fibers and regions that are void of the mixture. Appellant submits that Rasch teaches a tissue that has at least three regions disposed in a non-random repeating pattern, wherein the regions differ in basis weight. Appellant submits that Rasch fails to teach a layer comprising a mixture of short cellulosic fibers and synthetic fibers that is disposed in regions of that contain the mixture and regions that are void of the mixture on a layer comprising long cellulosic fibers. Appellant submits

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that Rasch's layers are coextensive such that the one layer is not disposed on the other layer in a non-random pattern comprising regions that are void of the fiber mixture of one layer.

In light of the foregoing, Appellant submits that Claim 1 is not rendered obvious over Trokhan '525 in view of any one of Milliken, Greiner, Trokhan '025, and Rasch. MPEP 2143.03. Further, Appellant submits that Claims 5 and 18-20, which ultimately depend from Claim 1, are not rendered obvious over Trokhan '525 in view of any one of Milliken, Greiner, Trokhan '025, and Rasch. MPEP 2143.03.

Rejection of Claims 2 and 3 under 35 U.S.C. §103(a) as allegedly defining obvious subject matter over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of U.S. Patent No. 6,548,731 to Mizutani et al. ("Mizutani")

i. Claim 2

Claim 2 is rejected by the Examiner under 35 U.S.C. §103(a) as allegedly defining obvious subject matter over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch, all discussed above, and further in view of U.S. Patent No. 6,548,731 to Mizutani et al. ("Mizutani").

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The Examiner recognizes that Trokhan '595, Milliken, Greiner, Trokhan '025, and Rasch, all fail to teach a synthetic fiber to short fiber ratio. The Examiner asserts that Mizutani teaches a synthetic fiber to short fiber ratio of between about 1 and 13.

Appellant respectfully submits that Mizutani fails to overcome the deficiencies noted in the prior art discussed above; namely, Mizutani fails to overcome the lack of teaching in the prior art about a fibrous structure comprising a layer comprising a mixture of short cellulosic fibers and synthetic fibers that is disposed upon a layer comprising softwood fibers, wherein the layer comprising the mixture is disposed on the softwood fiber layer in a non-random pattern of different basis weight regions wherein the regions comprise regions that comprise the mixture layer and regions that are void of the mixture layer, wherein the synthetic fiber length to cellulosic fiber length ratio is greater than about 1. Therefore, Appellant respectfully submits that Claim 2 is not rendered obvious over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of Mizutani. MPEP 2143.03.

ii. Claim 3

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Claim 3 is rejected by the Examiner under 35 U.S.C. §103(a) as allegedly defining obvious subject matter over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of Mizutani, all discussed above. The Examiner recognizes that Trokhan '595, Milliken, Greiner, Trokhan '025, and Rasch, all fail to teach a synthetic fiber to short fiber ratio. The Examiner asserts that Mizutani teaches a synthetic fiber to short fiber ratio of between about 1 and 13.

Appellant respectfully submits that Mizutani fails to overcome the deficiencies noted in the prior art discussed above; namely, Mizutani fails to overcome the lack of teaching in the prior art about a fibrous structure comprising a layer comprising a mixture of short cellulosic fibers and synthetic fibers that is disposed upon a layer comprising softwood fibers, wherein the layer comprising the mixture is disposed on the softwood fiber layer in a non-random pattern of different basis weight regions wherein the regions comprise regions that comprise the mixture layer and regions that are void of the mixture layer, wherein the synthetic fiber length to cellulosic fiber length ratio is between about 1 and about 20. Therefore, Appellant respectfully submits that Claim 3 is not rendered obvious over Trokhan '595

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in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of Mizutani. MPEP 2143.03.

Rejection of Claims 4, 8-12, and 15 under 35 U.S.C. §103(a) as allegedly defining obvious subject matter over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of WO 93/14267 to Manning ("Manning")

i. Claim 4

Claim 4 is rejected by the Examiner under 35 U.S.C. §103(a) as allegedly defining obvious subject matter over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch, all discussed above, and further in view of WO 93/14267 to Manning ("Manning"). The Examiner recognizes that Trokhan '595, Milliken, Greiner, Trokhan '025, and Rasch, all fail to teach a PTP factor between the synthetic fibers and the short fibers. The Examiner asserts that Manning teaches a synthetic fiber to short fiber PTP of greater than about 0.75.

Appellant respectfully submits that Manning fails to overcome the deficiencies noted in the prior art discussed above; namely, Manning fails to overcome the lack of teaching in the prior art about a fibrous structure comprising a layer comprising a mixture of short cellulosic fibers and

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synthetic fibers that is disposed upon a layer comprising softwood fibers, wherein the layer comprising the mixture is disposed on the softwood fiber layer in a non-random pattern of different basis weight regions wherein the regions comprise regions that comprise the mixture layer and regions that are void of the mixture layer, wherein the synthetic fiber to short fiber PTP is greater than about 0.75. Therefore, Appellant respectfully submits that Claim 4 is not rendered obvious over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of Manning. MPEP 2143.03.

ii. Claim 8

Claim 8 is rejected by the Examiner under 35 U.S.C. §103(a) as allegedly defining obvious subject matter over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of Manning, all discussed above. The Examiner recognizes that Trokhan '595, Milliken, Greiner, Trokhan '025, and Rasch, all fail to teach short cellulosic fibers having a length weighted average fiber length of less than about 1 mm and an average cellulosic fiber width of less than about 18 μm . The Examiner asserts that Manning teaches short cellulosic fibers having a length weighted

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average fiber length of less than about 1 mm and an average cellulosic fiber width of less than about 18 μm .

Appellant respectfully submits that Manning fails to overcome the deficiencies noted in the prior art discussed above; namely, Manning fails to overcome the lack of teaching in the prior art about a fibrous structure comprising a layer comprising a mixture of short cellulosic fibers and synthetic fibers that is disposed upon a layer comprising softwood fibers, wherein the layer comprising the mixture is disposed on the softwood fiber layer in a non-random pattern of different basis weight regions wherein the regions comprise regions that comprise the mixture layer and regions that are void of the mixture layer, wherein the short cellulosic fibers have a length weighted average fiber length of less than about 1 mm and an average cellulosic fiber width of less than about 18 μm . Therefore, Appellant respectfully submits that Claim 8 is not rendered obvious over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of Manning. MPEP 2143.03.

iii. Claim 9

Claim 9 is rejected by the Examiner under 35 U.S.C. §103(a) as allegedly defining obvious subject matter over Trokhan '595 in view of any

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one Milliken, Greiner, Trokhan '025, or Rasch and further in view of Manning, all discussed above. The Examiner recognizes that Trokhan '595, Milliken, Greiner, Trokhan '025, and Rasch, all fail to teach synthetic fibers having a length weighted average fiber length of more than about 2 mm and a diameter of more than about 15 μm . The Examiner asserts that Manning teaches synthetic fibers having a length weighted average fiber length of more than about 2 mm and a diameter of more than about 15 μm .

Appellant respectfully submits that Manning fails to overcome the deficiencies noted in the prior art discussed above; namely, Manning fails to overcome the lack of teaching in the prior art about a fibrous structure comprising a layer comprising a mixture of short cellulosic fibers and synthetic fibers that is disposed upon a layer comprising softwood fibers, wherein the layer comprising the mixture is disposed on the softwood fiber layer in a non-random pattern of different basis weight regions wherein the regions comprise regions that comprise the mixture layer and regions that are void of the mixture layer, wherein the synthetic fibers have a length weighted average fiber length of more than about 2 mm and a diameter of more than about 15 μm . Therefore, Appellant respectfully submits that Claim 9 is not rendered obvious over Trokhan '595 in view of any one

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Milliken, Greiner, Trokhan '025, or Rasch and further in view of Manning.
MPEP 2143.03.

iv. Claim 10

Claim 10 is rejected by the Examiner under 35 U.S.C. §103(a) as allegedly defining obvious subject matter over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of Manning, all discussed above. The Examiner recognizes that Trokhan '595, Milliken, Greiner, Trokhan '025, and Rasch, all fail to teach long cellulosic fibers having a length weighted average fiber length of greater than about 2 mm and an average cellulosic fiber width of less than about 50 μm . The Examiner asserts that Manning teaches long cellulosic fibers having a length weighted average fiber length of greater than about 2 mm and an average cellulosic fiber width of less than about 50 μm .

Appellant respectfully submits that Manning fails to overcome the deficiencies noted in the prior art discussed above; namely, Manning fails to overcome the lack of teaching in the prior art about a fibrous structure comprising a layer comprising a mixture of short cellulosic fibers and synthetic fibers that is disposed upon a layer comprising softwood fibers, wherein the layer comprising the mixture is disposed on the softwood fiber

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layer in a non-random pattern of different basis weight regions wherein the regions comprise regions that comprise the mixture layer and regions that are void of the mixture layer, wherein the long cellulosic fibers have a length weighted average fiber length of greater than about 2 mm and an average cellulosic fiber width of less than about 50 μm . Therefore, Appellant respectfully submits that Claim 10 is not rendered obvious over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of Manning. MPEP 2143.03.

v. Claim 11

Claim 11 is rejected by the Examiner under 35 U.S.C. §103(a) as allegedly defining obvious subject matter over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of Manning, all discussed above. The Examiner recognizes that Trokhan '595, Milliken, Greiner, Trokhan '025, and Rasch, all fail to teach bicomponent synthetic fibers. The Examiner asserts that Manning teaches bicomponent synthetic fibers.

Appellant respectfully submits that Manning fails to overcome the deficiencies noted in the prior art discussed above; namely, Manning fails to overcome the lack of teaching in the prior art about a fibrous structure

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comprising a layer comprising a mixture of short cellulosic fibers and synthetic fibers that is disposed upon a layer comprising softwood fibers, wherein the layer comprising the mixture is disposed on the softwood fiber layer in a non-random pattern of different basis weight regions wherein the regions comprise regions that comprise the mixture layer and regions that are void of the mixture layer, wherein the synthetic fibers comprise bicomponent fibers. Therefore, Appellant respectfully submits that Claim 11 is not rendered obvious over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of Manning. MPEP 2143.03.

vi. Claim 12

Claim 12 is rejected by the Examiner under 35 U.S.C. §103(a) as allegedly defining obvious subject matter over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of Manning, all discussed above. The Examiner recognizes that Trokhan '595, Milliken, Greiner, Trokhan '025, and Rasch, all fail to teach polyester and/or polyolefin based bicomponent synthetic fibers. The Examiner asserts that Manning teaches polyester and/or polyolefin based bicomponent synthetic fibers.

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Appellant respectfully submits that Manning fails to overcome the deficiencies noted in the prior art discussed above; namely, Manning fails to overcome the lack of teaching in the prior art about a fibrous structure comprising a layer comprising a mixture of short cellulosic fibers and synthetic fibers that is disposed upon a layer comprising softwood fibers, wherein the layer comprising the mixture is disposed on the softwood fiber layer in a non-random pattern of different basis weight regions wherein the regions comprise regions that comprise the mixture layer and regions that are void of the mixture layer, wherein the synthetic fibers comprise polyester and/or polyolefin based bicomponent fibers. Therefore, Appellant respectfully submits that Claim 12 is not rendered obvious over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of Manning. MPEP 2143.03.

vii. Claim 15

Claim 15 is rejected by the Examiner under 35 U.S.C. §103(a) as allegedly defining obvious subject matter over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of Manning, all discussed above. The Examiner recognizes that Trokhan '595,

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Milliken, Greiner, Trokhan '025, and Rasch, all fail to teach that some of the synthetic fibers are co-joined to at least some of the cellulosic fibers and/or other synthetic fibers. The Examiner asserts that Manning teaches heat fusing bicomponent fibers.

Appellant respectfully submits that Manning fails to overcome the deficiencies noted in the prior art discussed above; namely, Manning fails to overcome the lack of teaching in the prior art about a fibrous structure comprising a layer comprising a mixture of short cellulosic fibers and synthetic fibers that is disposed upon a layer comprising softwood fibers, wherein the layer comprising the mixture is disposed on the softwood fiber layer in a non-random pattern of different basis weight regions wherein the regions comprise regions that comprise the mixture layer and regions that are void of the mixture layer, wherein the synthetic fibers are co-joined to at least some of the cellulosic fibers and/or other synthetic fibers. Therefore, Appellant respectfully submits that Claim 15 is not rendered obvious over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of Manning. MPEP 2143.03.

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Rejection of Claim 9 under 35 U.S.C. §103(a) as allegedly defining obvious subject matter over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of U.S. Patent No. 4,202,959 to Henbest et al. ("Henbest")

i. Claim 9

Claim 9 is rejected by the Examiner under 35 U.S.C. §103(a) as allegedly defining obvious subject matter over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch, all discussed above, and further in view of U.S. Patent No. 4,202,959 to Henbest et al. ("Henbest"). The Examiner recognizes that Trokhan '595, Milliken, Greiner, Trokhan '025, and Rasch, all fail to teach synthetic fibers having a length weighted average of more than about 2 mm and an average fiber width of not more than 25 mm. The Examiner asserts that Henbest teaches synthetic fibers having a length weighted average of more than about 2 mm and an average fiber width of not more than 25 mm.

Appellant respectfully submits that Henbest fails to overcome the deficiencies noted in the prior art discussed above; namely, Henbest fails to overcome the lack of teaching in the prior art about a fibrous structure comprising a layer comprising a mixture of short cellulosic fibers and

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synthetic fibers that is disposed upon a layer comprising softwood fibers, wherein the layer comprising the mixture is disposed on the softwood fiber layer in a non-random pattern of different basis weight regions wherein the regions comprise regions that comprise the mixture layer and regions that are void of the mixture layer, wherein the synthetic fibers have a length weighted average of more than about 2 mm and an average fiber width of not more than 25 mm. Therefore, Appellant respectfully submits that Claim 9 is not rendered obvious over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of Henbest. MPEP 2143.03.

Rejection of Claims 13 and 14 under 35 U.S.C. §103(a) as allegedly defining obvious subject matter over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of any one U.S. Patent No. 5,405,499 to Vinson ("Vinson") or U.S. Patent No. 5,409,572 to Kershaw et al. ("Kershaw")

i. Claim 13

Claim 13 is rejected by the Examiner under 35 U.S.C. §103(a) as allegedly defining obvious subject matter over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch, all discussed above, and

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further in view of any one U.S. Patent No. 5,405,499 to Vinson ("Vinson") or U.S. Patent No. 5,409,572 to Kershaw et al. ("Kershaw"). The Examiner recognizes that Trokhan '595, Milliken, Greiner, Trokhan '025, and Rasch, all fail to teach a mixture of short cellulosic fibers and synthetic fibers wherein the mixture has a coarseness value of less than about 50mg/100m. The Examiner asserts that Vinson and Kershaw teach a mixture of short cellulosic fibers and synthetic fibers having a coarseness value of less than about 50mg/100m.

Appellant respectfully submits that Vinson and Kershaw fail to overcome the deficiencies noted in the prior art discussed above; namely, Vinson and Kershaw fail to overcome the lack of teaching in the prior art about a fibrous structure comprising a layer comprising a mixture of short cellulosic fibers and synthetic fibers that is disposed upon a layer comprising softwood fibers, wherein the layer comprising the mixture is disposed on the softwood fiber layer in a non-random pattern of different basis weight regions wherein the regions comprise regions that comprise the mixture layer and regions that are void of the mixture layer, wherein the mixture of short cellulosic fibers and synthetic fibers has a coarseness value of less than about 50mg/100m. Therefore, Appellant respectfully submits that Claim 13 is not

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rendered obvious over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of Vinson and/or Kershaw. MPEP 2143.03.

ii. Claim 14

Claim 14 is rejected by the Examiner under 35 U.S.C. §103(a) as allegedly defining obvious subject matter over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch, all discussed above, and further in view of any one Vinson or Kershaw. The Examiner recognizes that Trokhan '595, Milliken, Greiner, Trokhan '025, and Rasch, all fail to teach a mixture of short cellulosic fibers and synthetic fibers wherein the mixture has a coarseness value of less than about 25mg/100m. The Examiner asserts that Vinson and Kershaw teach a mixture of short cellulosic fibers and synthetic fibers having a coarseness value of less than about 25mg/100m.

Appellant respectfully submits that Vinson and Kershaw fail to overcome the deficiencies noted in the prior art discussed above; namely, Vinson and Kershaw fail to overcome the lack of teaching in the prior art about a fibrous structure comprising a layer comprising a mixture of short cellulosic fibers and synthetic fibers that is disposed upon a layer comprising

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softwood fibers, wherein the layer comprising the mixture is disposed on the softwood fiber layer in a non-random pattern of different basis weight regions wherein the regions comprise regions that comprise the mixture layer and regions that are void of the mixture layer, wherein the mixture of short cellulosic fibers and synthetic fibers has a coarseness value of less than about 25mg/100m. Therefore, Appellant respectfully submits that Claim 14 is not rendered obvious over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch and further in view of Vinson and/or Kershaw. MPEP 2143.03.

SUMMARY

In view of all of the above, it is respectfully submitted that Claims 1-5, 8-15, and 18-20 are not obvious over Trokhan '595 in view of any one Milliken, Greiner, Trokhan '025, or Rasch, and further in view of Mizutani, Manning, Henbest, Vinson and/or Kershaw. Accordingly, Appellant respectfully requests allowance of the pending claims.

Authorization is hereby given to charge the fees required under 37 CFR §41.20(b)(2) or any additional fees that may be required, or credit any

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overpayment, to Deposit Account No. 16-2480 in the name of The Procter &
Gamble Company.

Respectfully submitted,

THE PROCTER & GAMBLE COMPANY

/C. Brant Cook/
Signature
C. Brant Cook
Typed or printed name
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CLAIMS APPENDIX

1. A fibrous structure comprising at least two layers wherein at least one of the layers of the structure comprises randomly distributed softwood fibers and at least one other layer of the structure comprises a mixture of short cellulosic fibers and synthetic fibers, wherein the at least one other layer is disposed on the layer comprising randomly distributed softwood fibers in a non-random pattern of regions of different basis weight comprising regions containing the mixture of short cellulosic fibers and synthetic fibers and regions void of the mixture of short cellulosic fibers and synthetic fibers.
2. The fibrous structure of Claim 1, wherein the mixture of short cellulosic fibers and synthetic fibers have a synthetic fiber length to cellulosic fiber length ratio greater than about 1.
3. The fibrous structure of Claim 1, wherein the mixture of short cellulosic fibers and synthetic fibers have a synthetic fiber length to cellulosic fiber length ratio between about 1 and about 20.

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4. The fibrous structure of Claim 1, wherein the mixture of short cellulosic fibers and synthetic fibers have a PTP factor of greater than about 0.75.
5. The fibrous structure of Claim 1 wherein the short cellulosic fibers are hardwood fibers.
8. The fibrous structure of Claim 1 wherein the short cellulosic fibers have a length weighted average fiber length of less than about 1 mm and an average cellulosic fiber width of less than about 18 micrometers.
9. The fibrous structure of Claim 1 wherein the synthetic fibers have a length weighted average fiber length of more than about 2 mm and an average synthetic fiber diameter of more than about 15 micrometers.
10. The fibrous structure of Claim 1 wherein the softwood fibers have a length weighted average fiber length of greater than about 2 mm and an average cellulosic fiber width less than about 50 micrometers.

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11. The fibrous structure of Claim 1 wherein at least some of the synthetic fibers are bicomponent fibers.

12. The fibrous structure of Claim 11 wherein the bicomponent fibers are polyester based or polyolefin based.

13. The fibrous structure of Claim 1 wherein the mixture of short cellulosic fibers and synthetic fibers has a coarseness value of less than about 50mg/100m.

14. The fibrous structure of Claim 1 wherein the mixture of short cellulosic fibers and synthetic fibers has a coarseness value of less than about 25mg/100m.

15. The fibrous structure of Claim 1 wherein at least some of the synthetic fibers are co-joined to at least some of the cellulosic fibers and/or other synthetic fibers.

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18. The fibrous structure of Claim 1 wherein the fibrous structure is creped, uncreped or embossed.

19. The fibrous structure of Claim 1 wherein the fibrous structure is combined with a separate structure to form a multi-ply article.

20. The fibrous structure of Claim 1 further including latex disposed on at least a portion the fibrous structure.

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EVIDENCE APPENDIX

None

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RELATED PROCEEDINGS APPENDIX

None